

# ThinkPad P52 Platform Specifications

Product Specifications Reference (PSREF)

Processor	8th Generation Intel® Core™ i7 / i9 Processor or Intel Xeon® E Processor								Dimensions	WxDxH: 14.86" x 9.93" x 0.96-1.16"; 377.4mm x 252.3mm x 24.5-29.4mm WxDxH(Touch): 14.86" x 9.93" x 1.02-1.21"; 377.4mm x 252.3mm x 25.8-30.7mm	
	Processor Number	# of Cores	# of Threads	Base Frequency	Max Turbo Frequency	Cache	Memory Types	Processor Graphics	Weight	Non-touch model: starting at 5.4 lb / 2.45kg; Multi-touch model: starting at 6.4 lb / 2.9kg	
	i7-8750H	6	12	2.2 GHz	4.1 GHz	9MB	DDR4-2400	Intel UHD Graphics 630	Case color	Black	
	i7-8850H			2.6 GHz	4.3 GHz	9MB			Case material	Display cover: Glass-Fiber Reinforced Plastic; Bottom: Magnesium/Aluminum	
	i9-8950HK			2.9 GHz	4.8 GHz	12MB			Smart card reader	Optional: Smart card reader	
E-2176M	2.7 GHz			4.4 GHz	12MB	ExpressCard				None	
Graphics	Intel UHD Graphics 630 or P630 in processor and NVIDIA Quadro® P1000 (4GB memory), P2000 (4GB memory), or P3200 (6GB memory, VR ready); supports external digital monitor via HDMI, Mini DisplayPort, or Thunderbolt™; Up to 4 displays with 3 external monitors plus system LCD screen. Max resolution: 3840X2160@60Hz (DisplayPort via Mini DisplayPort cable); 5120X2880@30Hz (Thunderbolt); 4096x2160@60Hz (HDMI)								Media reader	4-in-1 reader (MMC, SD, SDHC, SDXC), supports UHS-II SD card	
Chipset	Mobile Intel CM246 Chipset								Ports	Three USB 3.1 Gen 1 (one Always On), two USB Type-C / Thunderbolt 3 (with the function of Power Delivery and DP), Mini DisplayPort 1.4, HDMI 2.0, Ethernet (RJ-45), nano-SIM card slot (WWAN models), headphone / microphone combo jack, optional smart card reader, 4-in-1 reader (MMC, SD, SDHC, SDXC), security keyhole	
Memory	128GB non-ECC or 64GB ECC max / 2400MHz DDR4 (ECC function supported only on Xeon processor), dual-channel capable, four DDR4 SO-DIMM sockets * Installed DIMMs are actually 2666MHz but run at 2400MHz due to Intel limitation * 128GB non-ECC memory for special bid only								* Power Delivery only supports power-out for charging peripherals * Depending on many factors, actual data transfer speed may be lower than theoretical speed		
Display	Some: 15.6" (396mm) FHD (1920x1080), anti-glare, LED backlight, WVA, 300 nits, 16:9 aspect ratio, 700:1 contrast ratio, 72% gamut, 160° viewing angle Some: 15.6" (396mm) UHD (3840x2160), anti-glare, LED backlight, WVA, 400 nits, 16:9 aspect ratio, 1000:1 contrast ratio, 100% gamut, 170° viewing angle, multi-touch								Camera (optional)	One of the following, configurable by model: • HD720p camera with ThinkShutter camera privacy, fixed focus • IR camera and HD720p camera, fixed focus	
Multi-touch (opt)	Capacitive-type multi-touch, supports 10-finger gesture (4K only)								Audio support	HD Audio, Realtek® ALC3286 codec / stereo speakers, 2W x 2, Dolby® Audio™ Premium / optional dual array microphone, headphone / microphone combo jack, Dolby Atmos® headphone	
Pen	Supports pen accessory, please see the accessory compatibility for details								Keyboard	6-row, spill-resistant, multimedia Fn keys, numeric keypad, LED backlight	
Storage	Up to 3 drives (two M.2 SSD and one HDD), supports single sided M.2 2280 drives only Some: HDD / SATA 6.0Gb/s, 2.5" wide, 7mm high, Active Protection System™ Some: M.2 SSD / PCIe NVMe, PCIe 3.0 x 4, 32Gb/s								UltraNav™	3-button TrackPoint® pointing device and 3-button Mylar surface multi-touch touchpad	
Optane™ memory	Optional: Intel Optane memory, PCIe NVMe, PCIe 3.0 x 2								Security	Power-on password, hard disk password, supervisor password, security keyhole	
RAID (optional)	RAID 0/1 support								Security chip	Discrete TPM 2.0, TCG Certified	
Optical	None								vPro (optional)	Intel vPro Technology	
Ethernet	Non-vPro model: Intel Ethernet Connection I219-V (Jacksonville) vPro model: Intel Ethernet Connection I219-LM (Jacksonville)								Fingerprint reader	Touch style match on chip fingerprint reader on the palm rest	
WLAN	Intel Wireless-AC 9560, Wi-Fi 2x2 802.11ac + Bluetooth 5.0, M.2 card								Color calibration	None	
Bluetooth™	Bluetooth 5.0 wireless, integrated in Wi-Fi + Bluetooth combo adapter								NFC (optional)	Near Field Communication	
WWAN (optional)	One of the following, configurable by model: • Wireless WAN upgradable • Integrated Mobile Broadband 4G LTE-A, Intel XMM™ 7360 (Fibocom L850-GL), M.2 card								Battery	Swappable Li-ion 90Wh battery	
SIM card (opt)	Nano-SIM card slot, optional Verizon LTE (US) SIM card								Max battery life	Discrete mode: 6.1 hr; Hybrid mode: 8.9 hr (MobileMark® 2014) * Battery life varies significantly with hardware configurations, settings, usage, & other factors	
									AC adapter	170W slim tip AC adapter	
									Operating system	One of the following, configurable by model: • Windows® 10 Home 64 • Windows 10 Pro 64 • Windows 10 Pro 64 for Workstations	
									Limited warranty (optional)	One of the following, configurable by model: • 1-year depot repair service • 3-year/1-yr battery depot repair service • 3-year/1-yr battery limited onsite service	
									Mil-Spec test	MIL-STD-810G military testing	
									Environment	EPEAT™ Silver; ENERGY STAR® 6.1; RoHS-compliant	

Note: The specifications above may not be available in all regions.

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